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Remarks

Applicant thanks Primary Examiner Zirker and Examiner Chang for extending Applicant, Robin Wright, and his representative, Allison Johnson, the courtesy of a teleconference interview on March 18, 2003. No agreement was reached. However, Examiner Zirker asked Applicant's representative to provide the position set forth during the teleconference in writing. This Amendment reflects Applicant's position.

Claims 19 and 35 have been amended. Applicant submits that the amendments to claims 19 and 35 render moot the rejection of claims 19-35 under 35 U.S.C. § 112, second paragraph, and request that it be withdrawn.

Claims 19-35 stand rejected under 35 U.S.C. § 103 over Japanese reference SHO 50-10353 (JP '353) in view of Park, U.S. 4,151,056 (Park).

JP '353 discloses coating the edge face of a roll of tape with a solution that includes an organic solvent and either a crosslinkable photosensitizer or a crosslinkable photosensitizer, a photoactive crosslinking agent and, optionally, a vinyl-based polymer. The organic solvents disclosed by JP '353 include toluene, tetrahydrofuran, methyl ethyl ketone, and acetone. JP '353 discloses that a very thin region at the surface of the pressure sensitive adhesive on the edge face of the tape is formed into a cured layer by means of crosslinking. ✓

JP '353 also describes attempts that were made to eliminate oozing of adhesive in which a coating solution, such as a varnish or a lacquer, was coated onto the edge face of a roll of tape (JP '353 translation, page 3, second full paragraph). JP '353 further indicates that the method results in uneven coating, which poses a problem, and that although oozing of the adhesive appears to be in control right after coating, oozing appears after the tape has been store at high temperature for extended periods of time (Id.). JP '353 explains that the oozing results from the migration of the adhesive to the edge face and a subsequent lifting of the coated layer (Id.). JP '353 further discloses that when the tape is left standing for a continuing period, oozing of the adhesive takes place and telescoping results (Id.). ✓

Park discloses that radiation curable coating compositions of the prior art typically contain a radiation reactive oligomer or resin, a radiation reactive diluent, a photoinitiator and optionally a radiation reactive crosslinker. Park further discloses a ✓

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discovery of certain alkanediones that are asserted to exhibit relatively lower levels of toxicity relative to acrylyl and metacrylyl compounds. Park also discloses a radiation curable coating composition that includes a radiation curable oligomer or resin, an alkanedione or cycloalkanedione, and optionally a photoinitiator and a crosslinker.

Claim 19 is directed to a roll of pressure sensitive adhesive tape that includes a first nontacky edge face, a second edge face, and a coating disposed on the first edge face, the coating including the reaction product of acrylate oligomer, polyetheracrylate oligomer, and, optionally monomer, photoinitiator or a combination thereof. It is undisputed that JP '353 fails to teach or suggest a coating disposed on the edge face of a roll of tape, where the coating includes the reaction product of acrylate oligomer and polyetheracrylate oligomer. Instead, JP '353 discloses detackifying the pressure sensitive adhesive present at the edge face of a roll of tape by crosslinking the portion of the pressure sensitive adhesive that is exposed at the edge face of the roll of tape. The method by which JP '353 detackifies the edge face involves applying a solution of photoactive crosslinker to the edge face. The solution enables the crosslinker to be carried into the pressure sensitive adhesive at the surface of the edge face. When the edge face is subsequently exposed to ultraviolet radiation, the crosslinker promotes crosslinking of the pressure sensitive adhesive with which it is in proximity.

JP '353 expressly teaches that it is undesirable to include too much vinyl-based polymer compound in the coating solution because the vinyl-based polymer will crosslink with itself to too great an extent thereby increasing the coating layer, which will block the transmittance of light to the pressure sensitive adhesive tape causing the degree of crosslinking of the pressure sensitive adhesive to be inadequate (see, page 6, lines 14-17). Thus, the mechanism by which JP '353 achieves a nontacky edge face is through crosslinking the exposed pressure sensitive adhesive. JP '353 does not achieve a nontacky surface by applying a coating composition to the surface of the edge face and crosslinking the coating composition. To the contrary, JP '353 discloses that rolls of tape in which the edge face thereof includes a coating of varnish or lacquer exhibit undesirable properties including adhesive oozing and telescoping (JP '353, page 3). Thus, JP '353 teaches away from applying a coating composition to the edge face of a roll of tape where the coating composition, itself, is to provide the detackification function.

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Park does not cure the deficiencies of JP '353. To establish a prima facie case of obviousness based upon a proposed combination of references there must be a teaching, suggestion or motivation in the prior art for making the proposed combination. See M.P.E.P. 2142; Fromson v. Anitec Printing Plates, Inc., 132 F.3d 1437 (Fed. Cir. 1997); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, (Fed. Cir. 1998). Here there is no such teaching, suggestion or motivation. Park does not teach or suggest a composition for detackifying a tacky surface --let alone for detackifying the edge face of a roll of pressure sensitive adhesive tape. Rather, Park generally describes radiation curable coating compositions and specifically discloses certain alkanediones and radiation curable compositions that include those alkanediones. Nothing in Park provides the requisite suggestion or motivation to the skilled artisan to apply the composition of Park or any other radiation curable composition to the edge face of a roll of adhesive tape. Accordingly the skilled artisan would have no reason to do so. Moreover, because JP '353 expressly discloses that coatings such as varnishes and lacquers are undesirable because they lift off and permit oozing of the adhesive and telescoping of the roll of tape, the skilled artisan would refrain from applying a composition such as those disclosed in Park to the edge face of a roll of tape. Applicants submit, therefore, that the rejection of claim 19 under 35 U.S.C. 103 over JP '353 in view of Park is unwarranted and request that it be withdrawn.

argues individually

The proposed combination of JP '353 and Park is further deficient for at least the following additional reason. It is undisputed that JP '353 fails to teach a coating disposed on the edge face of a roll of tape that includes the reaction product of acrylate oligomer and polyetheracrylate oligomer. Park does not cure this deficiency. Park does not teach a composition that includes the reaction product of acrylate oligomer and polyetheracrylate oligomer. Thus, the proposed combination of JP '353 and Park lacks a required element of claim 19. Accordingly, the rejection of claim 19 under 35 U.S.C. § 103 over JP '353 in view of Park cannot stand and must be withdrawn. Should this rejection be maintained, Applicants respectfully request that the Examiner identify, by column and line number, where in Park there is a teaching of a composition that includes the reaction product of both an acrylate oligomer and a polyetheracrylate oligomer and

mixture

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further where in Park there is a suggestion to select such a composition for use on the edge face of a roll of pressure sensitive adhesive tape.


Claims 20-35 are distinguishable over the proposed combination of JP '353 and Park for at least the same reasons set forth above in distinguishing claim 19. Applicant submits, therefore, that the rejection of claims 20-35 under 35 U.S.C. § 103 over JP '353 in view of Park is unwarranted and requests that it be withdrawn.

The claims pending in the application are in condition for allowance and such action is respectfully requested. The Examiner is invited to telephone the undersigned if a teleconference interview would facilitate prosecution of this application.

Please charge any additional fees that may be required or credit any overpayment made to Deposit Account No. 501,171.

Respectfully submitted,

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PENDING CLAIMS

1. (Withdrawn) A method of detackifying an edge face of a roll of pressure sensitive adhesive tape, said method comprising:

- a) contacting an edge face of the roll of tape with a composition comprising
 - i) acrylate oligomer, and
 - ii) polyetheracrylate oligomer; and
- b) curing said composition.

2. (Withdrawn) The method of claim 1, wherein said composition comprises

- a) from about 10% to about 40% acrylate oligomer; and
- b) from about 50% to about 90% polyetheracrylate oligomer.

3. (Withdrawn) The method of claim 1, wherein said acrylate oligomer comprises polyurethane acrylate.

4. (Withdrawn) The method of claim 1, wherein said polyetheracrylate comprises amine functionality.

5. (Withdrawn) The method of claim 1, wherein said composition further comprises monomer.

6. (Withdrawn) The method of claim 5, wherein said monomer comprises an ethylenically unsaturated monomer.

7. (Withdrawn) The method of claim 5, wherein said monomer is selected from the group consisting of ethylene glycol diacrylate, propylene glycol diacrylate, trimethylolpropane triacrylate, 1,6-hexamethylenedioldiacrylate, pentaerythritol

diacrylate, pentaerythritol triacrylate, pentaerythritol tetraacrylate, 1,12-dodecanedioldiacrylate and mixtures thereof.

8. (Withdrawn) The method of claim 5, wherein said monomer is selected from the group consisting of lauryl acrylate, stearyl acrylate, isooctyl acrylate, acrylic acid, 2-ethylhexyl acrylate, nonyl acrylate, isobornyl acrylate, ethoxyethoxyethyl acrylate, N-vinyl caprolactam and N-vinyl-2-pyrrolidone, and ethoxylated and propoxylated monomers thereof, and mixtures thereof.

9. (Withdrawn) The method of claim 1, wherein said composition further comprises a matting agent.

10. (Withdrawn) The method of claim 9, wherein said matting agent comprises silica.

11. (Withdrawn) The method of claim 1, wherein said composition further comprises silicone acrylate.

12. (Withdrawn) The method of claim 1, wherein said composition further comprises a photoinitiator.

13. (Withdrawn) The method of claim 12, wherein said photoinitiator is selected from the group consisting of α -hydroxy ketones, α -amino ketones, benzildialkyl ketals, acylphosphine oxides, benzophenones and combinations thereof.

14. (Withdrawn) The method of claim 12, wherein said composition further comprises an amine synergist.

15. (Withdrawn) The method of claim 1, wherein when a layer of said roll of tape is unwound from said roll, said coating remains adhered to the layer.

16. (Withdrawn) The method of claim 1, wherein said curing comprises exposing said composition to radiation selected from the group consisting of ultraviolet radiation, electron beam radiation, gamma radiation and combinations thereof.

17. (Withdrawn) The method of claim 1, further comprising contacting a second edge face of said roll of tape with a coating composition and curing said composition.

18. (Withdrawn) The method of claim 1, further comprising substantially simultaneously contacting said first edge face of said roll of tape and a second edge face of said roll of tape with said coating composition.

19. (Currently Amended) A roll of pressure sensitive adhesive tape comprising

- a first nontacky edge face;
- a second edge face opposite said first edge face; and
- a coating disposed on said first edge face, said coating comprising the reaction product of
 - a) acrylate oligomer;
 - b) polyetheracrylate oligomer; and
 - c) optionally monomer, photoinitiator or a combination thereof.

20. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein said composition comprises the reaction product of

- a) from about 10% to about 40% acrylate oligomer, and
- b) from about 50% to about 90% polyetheracrylate oligomer.

21. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein said acrylate oligomer comprises polyurethane acrylate.

22. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein said polyetheracrylate comprises amine functionality.

23. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein said composition comprises the reaction product of said acrylate oligomer, said polyether acrylate oligomer and said monomer.

24. (Original) The roll of pressure sensitive adhesive tape of claim 23, wherein said monomer comprises an ethylenically unsaturated monomer.

25. (Original) The roll of pressure sensitive adhesive tape of claim 23, wherein said monomer is selected from the group consisting of ethylene glycol diacrylate, propylene glycol diacrylate, trimethylolpropane triacrylate, 1,6-hexamethylenedioldiacrylate, pentaerythritol diacrylate, pentaerythritol triacrylate, pentaerythritol tetraacrylate, 1,12-dodecanedioldiacrylate and mixtures thereof.

26. (Original) The roll of pressure sensitive adhesive tape of claim 23, wherein said monomer is selected from the group consisting of lauryl acrylate, stearyl acrylate, isooctyl acrylate, acrylic acid, 2-ethylhexyl acrylate, nonyl acrylate, isobornyl acrylate, ethoxyethoxyethyl acrylate, N-vinyl caprolactam and N-vinyl-2-pyrrolidone, and ethoxylated and propoxylated monomers thereof, and mixtures thereof.

27. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein said composition further comprises a matting agent.

28. (Original) The roll of pressure sensitive adhesive tape of claim 27, wherein said matting agent comprises silica.

29. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein said composition further comprises silicone acrylate.

30. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein said composition comprises the reaction product of said acrylate oligomer, said polyether acrylate oligomer and said photoinitiator.

31. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein said photoinitiator is selected from the group consisting of α -hydroxy ketones, α -amino ketones, benzildialkyl ketals, acylphosphine oxides, benzophenones and combinations thereof.

32. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein when a layer of said roll of tape is unwound from said roll, said coating remains adhered to said layer.

33. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein said coating is crosslinked.

34. (Original) The roll of pressure sensitive adhesive tape of claim 19, wherein said second edge face is nontacky, said tape further comprising a coating disposed on said second edge face, said coating comprising the reaction product of

- a) acrylate oligomer;
- b) polyetheracrylate oligomer; and
- c) optionally monomer, photoinitiator or a combination thereof..

35. (Currently Amended) A roll of pressure sensitive adhesive tape comprising

a first nontacky edge face;

a second edge face opposite said first edge face; and

a discontinuous coating disposed on said first edge face, said coating comprising the reaction product of

- a) acrylate oligomer;
- b) polyetheracrylate oligomer; and
- c) optionally monomer, photoinitiator or a combination thereof.